

CHAPTER 1. UNITED STATES AVIATION AND THE INTERNATIONAL CIVIL AVIATION ORGANIZATION

1. BACKGROUND.

An understanding of oceanic operations demands a knowledge of the International Civil Aviation Organization (ICAO) and the U.S. involvement in this organization. This background is needed to understand the relationship between U.S. policy and international policy.

World War II had a major impact on the technical development of aircraft, telescoping one quarter century of peacetime development into 6 years. There were many political and technical problems to be resolved to support a world at peace. Safety and regularity in air transportation necessitated airports, installation of navigational aids (navaids), and weather reporting systems. Standardization of methods for providing international services was vital to preclude unsafe conditions caused by misunderstanding or inexperience. Establishment of standards for air navigation, air traffic control (ATC), personnel licensing, airport design, and for many other important issues related to air safety required international action. Questions concerning the commercial and legal rights of developing airlines to fly into and through the territories of another country led the United States to conduct exploratory discussions with other allied nations during early 1944. On the basis of these talks, invitations were sent to allied and neutral states to meet in Chicago in November 1944. The outcome of this Chicago Convention was a treaty requiring ratification by 26 of the 52 states that met. By ratifying the treaty, contracting states agreed to pursue certain stated objectives, assume certain obligations, and establish the international organization that became known as ICAO.

As a charter member of ICAO, the United States has fully supported the organization's goals from its inception, being especially concerned with technical matters. Through ICAO, the United States works to achieve the highest practical uniform air regulations, standards and procedures for aircraft, personnel, airways, and aviation services throughout the world. At the same time, the United States depends upon ICAO to ensure that navigation facilities, airports, weather, and radio services provided by other nations meet international standards.

Through active support and participation in ICAO, the Federal Aviation Administration (FAA) strives to improve worldwide safety standards and procedures to make international flying more efficient and economical. The FAA also provides technical assistance to other nations when needed. As of April 1994, the FAA had 295 agreements with 86 foreign countries to provide technical assistance in areas such as flight inspection, training, air traffic development, loan of equipment and navaids, and supply support. The specific terms of these arrangements are detailed in memorandums of agreement. These memorandums include descriptions of the services, special conditions, financial provisions, liability information, effective dates, termination dates, and other information required for particular situations. Agreements involving international activities are negotiated and signed by the Director of International Aviation on behalf of the FAA.

2. ICAO AND THE ICAO ANNEXES.

a. ICAO Objectives. The objectives of ICAO are to develop the principles and techniques of international air navigation and to foster the continued development of international air transportation through the following means:

- Promoting the safe and orderly growth of civil aviation throughout the world.
- Fostering the technical arts of aircraft design and operation for peaceful purposes.
- Encouraging the development of airways, airports, and air navigation facilities for international civil aviation.

- Meeting the needs of the world's people for safe, regular, efficient, and economical air transportation.
- Preventing economic waste caused by unreasonable competition.
- Ensuring that the rights of contracting states are fully respected and that every contracting state has an equal opportunity to operate international airlines.
- Avoiding discrimination among contracting states.
- Promote the development of all aspects of international civil aeronautics

b. Privileges and Obligations of Member States. Ratifying the Convention obligated member states to abide by "certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner, and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically." Ninety-six articles, created and accepted at the Chicago Convention, established the privileges and obligations of the member states. Some of these articles are summarized as follows:

(1) Contracting states recognize that each state has complete and exclusive sovereignty over the airspace above its territory (Article 1).

(2) The Convention, including the articles and annexes, applies only to civil aircraft. Each member state will require its state aircraft to operate with "due regard" for the safety of navigation of civil aircraft (Article 3).

(3) International air navigation laws and regulations of a contracting state pertaining to the operation and navigation of such aircraft while within its territory shall apply to the aircraft of all contracting states without distinction to nationality. These laws and regulations shall be complied with by such aircraft while entering, within, or departing from the territory of that state (Article 11).

(4) Each contracting state adopts measures to ensure that every aircraft maneuvering over or within its territory, and every aircraft carrying a nationality marking, wherever it operates, shall comply with the rules and regulations of that country relating to the flight and maneuver of aircraft. This article also requires that, in operations over the high seas, the rules in force shall be those established under this Convention. Each contracting state undertakes to ensure the prosecution of all persons violating the applicable regulations (Article 12).

(5) Each contracting state undertakes not to discriminate in the availability of, or charges for, airports and other air navigation facilities (Article 15).

(6) Each contracting state undertakes to provide airports, radio services, meteorological services, and other air navigation facilities in its territory to facilitate international air navigation in accordance with ICAO standards and practices (Article 22).

(7) Each contracting state undertakes to adopt and put into operation appropriate standard systems of communication, codes, markings, signals, lighting, and other operational practices and rules recommended or established by ICAO (Article 28).

(8) Each contracting state recognizes the validity of Certificates of Airworthiness and Licenses of Competency issued by other contracting states, when issued under conditions that comply with ICAO standards (Article 33).

(9) Each contracting state collaborates in securing the highest practicable degree of uniformity in regulations, standards, procedures, and organization in relation to aircraft, personnel, airways, and auxiliary services when uniformity will facilitate and improve air navigation (Article 37).

(10) Each contracting state undertakes to immediately notify ICAO of any differences between national regulations and any ICAO standards (Article 38).

c. Organizational Structure. ICAO is recognized by the United Nations (U.N.) as a specialized agency for international civil aviation. An agreement between these organizations ensures an efficient working relationship and a mutual recognition of their respective roles. ICAO is not subordinate to, and does not receive any line-of-command authority from, the United Nations.

(1) **Assembly.** The Assembly is the sovereign body of ICAO. It meets every 3 years for a detailed review of the organization's technical, economic, legal, and technical assistance programs, offers guidance and provides direction concerning the future work of other ICAO bodies. Each nation has one vote in the assembly and, unless the convention provides otherwise, a majority rules. In 1994 there were 183 ICAO member nations, and therefore 183 assembly votes.

(2) **Council.** The Council, composed of elected representatives from 33 member states, is the permanent governing body of ICAO. The Council is responsible to the Assembly for processing ICAO's technical, economic, legal and technical assistance work programs. The Council investigates situations that might create obstacles to international air navigation, and takes action as necessary to protect global air safety and order. When required, it also serves as an arbiter between member states on aviation matters.

(3) **Air Navigation Commission.** The Air Navigation Commission (ANC) is composed of 15 individuals, each an expert in at least one technical field of aviation. The ANC is primarily concerned with the development of ICAO Standards and Recommended Practices (SARP) in 17 of the 18 Annexes to the Convention, that is, all annexes except Annex 17, Security.

(4) **Air Transport Committee.** The Air Transport Committee's prime concern is economic matters relating to airports, route facilities, and air carrier tariffs. This information is used to promote fair and equal opportunities for all international carriers.

(5) **Joint Support Committee.** The Joint Support Committee provides for financial arrangements for certain air facilities or services when member states have inadequate resources. Most funding comes from direct user charges to air carriers. This committee studies air service problems and makes suitable arrangements between user and provider states.

(6) **Legal Committee.** The Legal Committee interprets questions on the Chicago Convention and public and private law. Some of its main concerns are hijackings and other acts of air terrorism, air carrier liability, and jurisdiction over offenses committed on international flights.

(7) **Unlawful Interference with International Civil Aviation.** The Committee on Unlawful Interference with International Civil Aviation and its facilities assist and advise the council on all activities relating to aviation security. One of the Committee's major functions is the development and revision of ICAO SARP in Annex 17 to the Convention.

(8) **Secretariat.** The ICAO Secretariat, headed by a Secretary General, is comprised of staff members who provide both technical and administrative support for the triennial Assemblies, the Council, and the Council's seven subordinate bodies, such as the Air Navigation Commission.

d. ICAO Publications.

(1) **The ICAO Journal.** This document is published 12 times annually and contains a digest of ICAO meetings, activities for the previous period, and articles, etcetera. Semiannually, it contains a table showing the status of all ICAO publications involving air navigation.

(2) **Final Reports of Meetings.** The final reports of divisional, regional, and panel meetings include the proceedings and recommendations of each meeting. These recommendations are not effective until reviewed

by the Air Navigation Commission or another appropriate committee and approved by the Council. Approved recommendations are separately referred as appropriate to the affected states for implementation.

(3) *Annexes to the Convention.* The 18 ICAO Annexes to the Convention contain the international SARP that have been adopted by the Council. Paragraph 2e contains a list of these 18 Annexes with a brief description of their subject matter.

(4) *Procedures for Air Navigation Services (PANS).* Normally developed by the Air Navigation Commission and based on recommendations of divisional or panel meetings, Procedures for Air Navigation Services (PANS) are intended to amplify in more detail SARP in ICAO Annexes in certain fields. To date, PANS exist for aircraft operations (PANS-OPS), rules of the air and air traffic services (PANS-RAC), and ICAO abbreviations and codes (PANS-ABC).

(5) *Regional Supplementary Procedures.* Certain procedures apply only in specific regions and are published as Supplementary Procedures. A Supplementary Procedure can explain and amplify, but cannot conflict with international standards. For convenience, all regional Supplementary Procedures have been included in a single document and similar procedures applicable to two or more regions are grouped together.

(6) *Manuals.* Like PANS, these technical publications are intended to facilitate states' implementation of SARP by providing more detailed guidance and information, for example, Airport Planning Manual and Manual of Procedures for Operations Certification and Inspection.

(7) *ICAO Circulars.* ICAO Circulars are issued by the Secretary General to make specialized information available to contracting states. This information is not adopted or approved by the Council. Circulars include studies of statistics, summaries of treaties or agreements, analyses of technical documents, and studies of technical subjects.

More complete descriptions of these and other ICAO publications are contained in annual editions of the "Catalogue of ICAO Publications and Audio Visual Aids." This catalogue and other ICAO publications are available by contacting ICAO at the following address:

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International Civil Aviation Organization
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Montreal, Quebec
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e. International SARP. Since ICAO was created, a main technical feature of the organization has been operational standardization of safe, regular, and efficient air services. This has resulted in high levels of reliability in the many areas that collectively shape international civil aviation, particularly with respect to aircraft, the aircraft crews, and the ground-based facilities and services. Standardization has been achieved through the creation, adoption, and amendment of Annexes to the Convention on International Civil Aviation, identified as international SARP. Standards are directives which ICAO members agree to follow. If a member has a standard different from an ICAO standard, that member must notify ICAO of the difference. Recommended practices are desirable practices but not essential. The basic criterion for deciding whether a particular issue should be a standard is an affirmative answer to the question, "Is uniform application by all contracting states essential?" The applicability of a standard may be subject to certain conditions relating to such areas as terrain, traffic density, stages of flight, and climate. A standard should, however, be applied equally by any contracting state when those specified conditions are encountered, unless the contracting state notifies ICAO of a difference and publishes this difference in its Aeronautical Information Publication (AIP).

ICAO Annexes contain the standards and recommended practices that have been adopted through international agreement. The 18 annexes are described as follows:

(1) Annex 1, Personnel Licensing, provides information on licensing of flightcrews, air traffic controllers, and aircraft maintenance personnel, including medical standards for flightcrews and air traffic controllers.

(2) Annex 2, Rules of the Air, contains rules relating to conducting visual and instrument flight.

(3) Annex 3, Meteorological Service for International Air Navigation, provides for meteorological services for international air navigation and reporting of meteorological observations from aircraft.

(4) Annex 4, Aeronautical Charts, contains specifications for aeronautical charts used in international aviation.

(5) Annex 5, Measurement Units Used in Air and Ground Operations, lists dimensional systems to be used in air and ground operations.

(6) Annex 6, Operation of Aircraft, enumerates specifications to ensure a level of safety above a prescribed minimum in similar operations throughout the world. The three parts of this Annex include the following:

- Part I - International Commercial Air Transport - Airplanes
- Part II - International General Aviation - Airplanes
- Part III - International Operations - Helicopters

(7) Annex 7, Aircraft Nationality and Registration Marks, specifies requirements for registration and identification of aircraft.

(8) Annex 8, Airworthiness of Aircraft, specifies uniform procedures for certification and inspection of aircraft.

(9) Annex 9, Facilitation, provides for the standardization and simplification of border-crossing formalities.

(10) Annex 10, Aeronautical Telecommunications, Volume 1, provides for standardizing communications equipment and systems. Volume 2 standardizes communications procedures.

(11) Annex 11, Air Traffic Services, includes information on establishing and operating ATC, flight information, and alerting services.

(12) Annex 12, Search and Rescue, provides information on organization and operation of facilities and services necessary for search and rescue (SAR).

(13) Annex 13, Aircraft Accident Investigation, provides for uniformity in notifying, investigating, and reporting on aircraft accidents.

(14) Annex 14, Aerodromes, contains specifications for the design and equipment of aerodromes.

NOTE: Most countries outside of North America designate "airports" as "aerodromes."

(15) Annex 15, Aeronautical Information Services, includes methods for collecting and disseminating aeronautical information required for flight operations.

(16) Annex 16, Environmental Protection, Volume 1, contains specifications for aircraft noise certification, noise monitoring, and noise exposure units for land-use planning. Volume 2 contains specifications for aircraft engine emissions.

(17) Annex 17, Security-Safeguarding International Civil Aviation Against Acts of Unlawful Interference, specifies methods for safeguarding international civil aviation against unlawful acts of interference.

(18) Annex 18, The Safe Transport of Dangerous Goods by Air, contains specifications for labeling, packing, and shipping dangerous cargo.

3. ICAO REGIONAL PLANS AND AERONAUTICAL INFORMATION PUBLICATIONS.

a. Regional Planning. Although ICAO is involved with civil aviation on a worldwide scale, there are many subjects it considers on a regional basis. Regional air navigation meetings are held periodically to consider the requirements of air operations in specified areas. Facilities, services, and the formulation of supplementary procedures necessary to support increases in traffic density, new air routes, and the introduction of new types of aircraft are among the topics considered. These meetings identify the numerous facilities and services to be provided by states in the nine ICAO regions. After review of the meeting recommendations by the Air Navigation Commission and approval by the Council, the recommendations are reflected in Air Navigation Plan publications which cover the nine ICAO regions.

b. Air Navigation Plans. Air Navigation Plans provide details of facilities, services, and procedures required for international air navigation within specified areas. Each Air Navigation Plan also contains recommendations for providing air navigation facilities and services within a specific area. Affected governments can be assured that, if the recommended facilities and services are furnished in accordance with the plan, the facilities will become part of an integrated air navigation system adequate for the foreseeable future. The plans are amended periodically to reflect changes in requirements and in the implementation status of the facilities and services.

c. Aeronautical Information Publications (AIP). Each state is responsible for developing an AIP that satisfies international requirements for the exchange of aeronautical information essential to air navigation. Each AIP contains information on air traffic, airports, nav aids, special use airspace, weather, and other data vital to flightcrews coming into or flying through the airspace of a particular state. Each AIP should provide information that is adequate, accurate, timely, and designed for in-flight use. AIP's contain lists of significant differences between the national regulations and practices of the state and ICAO standards, recommended practices, and procedures. Notices to Airmen (NOTAM) are issued when information is temporary or cannot be made available quickly enough by an AIP amendment.

4. U.S. PUBLIC LAW, INTERNATIONAL AGREEMENTS, AND STANDARDS RELATED TO AIR NAVIGATION.

a. The Federal Aviation Act of 1958, as Amended (The FA Act). The FAA authorities and responsibilities related to air navigation and navigation systems, practices, and procedures originate in the FA Act. Two important sections of the Act are Sections 307 and 601. Section 307 of the FA Act states that "The Secretary of Transportation is authorized and directed to develop plans for and formulate policy with respect to the use of the navigable airspace; and assign by rule, regulation, or order the use of the navigable airspace under such terms, conditions, and limitations (operational procedures and navigation performance requirements) as he may deem necessary in order to ensure the safety of aircraft and the efficient utilization of such airspace." Section 601 of the FA Act empowers the Secretary to "promote safety of flight of civil aircraft in air commerce by prescribing and revising from time to time ... minimum standards governing the ... performance of aircraft ... and appliances (navigation performance and navigation systems) as may be required in the interest of safety ... reasonable rules and regulations, or minimum standards, governing other practices, methods, and procedure ... necessary to provide adequately for national security and safety in air commerce."

NOTE: On July 4th, 1994, the FA Act was recodified to "United States Code 49."

b. Protection of Persons and Property. The need to ensure protection of persons and property, both during flight and on the ground, is fundamental to the Federal Aviation Regulations (FAR). Many of the design and performance requirements in aircraft certification rules are established to provide this protection. This protection is also extensively addressed in the operating and equipment rules related to air navigation. It is important that the regulations provide this protection equally to persons and property both during flight and on the ground. Approvals of routes and areas of en route operation must take into account the need to protect persons and property on the ground as well as during flight.

c. Equipment Redundancy. Each airplane must have enough navigation equipment installed and operational to ensure that, if one item of equipment fails at any time during the flight, the remaining equipment will be sufficient to enable navigation to the degree of accuracy required for ATC. Additionally, failure of any single unit required for communication or navigation purposes or both, must not result in the loss of another required unit.

d. Relationship Between the FAR, ICAO SARP, and National Regulations. The FA Act is the authority for the FAR. The FAR represent the regulatory implementation of the responsibilities assigned by the FA Act and the implementation of the principles derived from the ICAO Convention. The relationship between the FAR, ICAO SARP, and foreign national regulations are discussed in the following subparagraphs.

(1) FAR Part 91 regulates the operation of aircraft other than moored balloons, kites, unmanned rockets, and unmanned free balloons that are governed by FAR Part 101, and ultralight vehicles operated in accordance with FAR Part 103. The following are examples of Part 91 regulations applicable outside the United States.

(a) FAR 91.703(a)(1) and (a)(2) requires each person operating a U.S.-registered aircraft to comply with ICAO Annex 2 when over the high seas and to comply with the regulations of a foreign country when operating within that country's airspace.

(b) FAR 91.703(a)(3) requires compliance with FAR 91.703 when not in conflict with the regulations of a foreign nation or Annex 2 of the Convention on International Civil Aviation.

(c) FAR 91.703 (a)(4), FAR 91.705 and FAR 91 Appendix C specify regulatory requirements and minimum standards for operation in North Atlantic (NAT) Minimum Navigation Performance Specifications (MNPS) airspace.

(2) For operators conducting operations under FAR Part 135, FAR 135.3 (a) requires compliance with the applicable rules of that chapter while operating within the United States. FAR 135.3 (b) specifies that while operating outside of the United States, operators must comply with the following:

(a) Annex 2, Rules of the Air, to the Convention on International Civil Aviation

(b) Rules of a foreign country when operating within that country

(c) All the regulations of FAR Parts 61, 91, and 135 that are more restrictive than Annex 2 or regulations of a foreign country when compliance with these U.S. regulations would not violate requirements of Annex 2 or the foreign country.

(3) For operators conducting operations under FAR Part 121, FAR 121.1 requires compliance with that part while operating within or outside the United States. FAR 121.11 specifies that these operators, when operating within a foreign country, must comply with the air traffic rules of the country concerned and any local airport rules which may be in force. FAR 121.11 also requires that all rules of FAR Part 121 that are more restrictive than a foreign country's rules must be followed, if it can be done without violating the rules of that country. Additionally, air carriers operating under FAR Part 121 must comply with Annex 2 when over the high seas according to FAR 91.1.